L10 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

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DOCUMENT NUMBER:

123:144502

TITLE:

Method for preparation of 1-O-acylglycerol 2,3-cyclic

phosphate

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PATENT ASSIGNEE(S): SOURCE:

Sagami Chem Res, Japan Jpn. Kokai Tokkyo Koho, 31 pp.

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PATENT NO. KIND DATE APPLICATION NO. DATE JP 06228169 A2 19940816 JP 1993-40657 19930205 PRIORITY APPLN. INFO.: JP 1993-40657 19930205 OTHER SOURCE(S): CASREACT 123:144502; MARPAT 123:144502

GT

$$\begin{array}{c} \text{CH}_2\text{O}_2\text{CR} \\ | \\ \text{CHO} \\ | \\ \text{CH}_2\text{O} \\ \text{P} \\ \text{O} \\ \text{M}^+ \\ \text{I} \\ \end{array} \begin{array}{c} \text{Q} = \\ \text{(CH}_2\text{)}_7 \\ \text{(CH}_2\text{)}_5\text{Me} \\ \text{(CH}_2\text{)}_6\text{Me} \\ \text{(CH}_2\text{)}_6\text{Me} \\ \text{CHOR}^1 \\ | \\ \text{CHOR}^2 \\ \end{array}$$

The title compound [I; R = linear or branched C1-30 alkyl or C2-30 alkenyl optionally containing a cycloalkane or an aromatic ring; M = H, alkali or alkaline

earth metal, (un) substituted ammonium] is prepared by reacting 1-O-acylglycerol RCO2CH2CH(OH)CH2OH (R = same as above) with a phosphorylating agent X1X2X3P(0) [X1 = halo, imidazolyl, triazolyl; X2 = halo, imidazolyl, triazolyl, (un) substituted PhO or alkoxy; X3 = imidazolyl, triazolyl, (un) substituted PhO or alkoxy, substituted aminol followed by hydrolysis. An optically active intermediate (II; m, n = 0-15integer; R1, R2 = H, HO-protective group) is also prepared This process gives, in particular, lysophosphatidic acid PHYLPA I (R = Q, M = Na) which is a potent DNA polymerase  $\alpha$  inhibitor and potentially useful as an antitumor agent (no data). Thus, 1-0-[(9S,10R)-9,10-methanohexadecanoyl]-

sn-glycerol (preparation given) in THF was added to a solution of phosphoryl tristriazolide in THF which was prepared by reacting triazole with POCl3 and Et3N in THF, and the resulting mixture was stirred at room temperature for 20

min,

over
anhydrous Na2SO4, treated with NaH in Et2O, and extracted with distilled water
followed by freeze-drying the water extract to give 97% optically active

annydrous Na2SO4, treated with NaH in Et2O, and extracted with distilled water followed by freeze-drying the water extract to give 97% optically active title compound (III).

added to 2% aqueous HCl, and extracted with Et2O. The ether extract was dried

IT 151766-47-1P 151766-51-7P 151766-52-8P

151766-53-9P 164215-56-9P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of O-acylglycerol cyclic phosphate as DNA polymerase inhibitor and antitumor agent)

RN 151766-47-1 CAPLUS

CN Cyclopropaneoctanoic acid, 2-hexyl-, [(4R)-2-hydroxy-2-oxido-1,3,2-dioxaphospholan-4-yl]methyl ester, sodium salt, (1S,2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

## Na

RN 151766-51-7 CAPLUS

CN Cyclopropaneoctanoic acid, 2-hexyl-, [(4S)-2-hydroxy-2-oxido-1,3,2-dioxaphospholan-4-yl]methyl ester, sodium salt, (1S,2R)- (9CI) (CA\_INDEX\_NAME)

Absolute stereochemistry. Rotation (-).

## Na Na

RN 151766-52-8 CAPLUS

CN Cyclopropaneoctanoic acid, 2-hexyl-, [(4R)-2-hydroxy-2-oxido-1,3,2-dioxaphospholan-4-yl]methyl ester, sodium salt, (1R,2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

🖪 Na

RN 151766-53-9 CAPLUS

CN Cyclopropaneoctanoic acid, 2-hexyl-, [(4S)-2-hydroxy-2-oxido-1,3,2-dioxaphospholan-4-yl]methyl ester, sodium salt, (1R,2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Na

RN 164215-56-9 CAPLUS

CN Hexadecanoic acid, (2-hydroxy-2-oxido-1,3,2-dioxaphospholan-4-yl)methyl ester, sodium salt (9CI) (CA INDEX NAME)

Na